

1954

Reprinted from JOURNAL OF THE NEW YORK ENTOMOLOGICAL SOCIETY,
Vol. LXI, December, 1953, pages 211-214.

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A NEW CAMPONOTUS IN CALIFORNIA APPAR-
ENTLY INHABITING LIVE OAK, QUERCUS SP.
(HYMENOPTERA, FORMICIDÆ)

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Recently I received for determination from Thompson C. Lawrence, University of California, Berkeley, an unusually interesting, shiny black species of *Camponotus* which he found foraging on, and "dominating" live oaks at Tanbark Flat, Los Angeles County, California. Although unable to find colonies, he collected 79 workers of variable size from the trees. These represent a new species. Its taxonomic position and its relationship to other species are discussed below.

Camponotus (Camponotus) quercicola, n. sp.

Major (♀) worker: Length 12 mm.

Head (not including the mandibles) as broad as long when measured at its greatest breadth and length, narrower anteriorly than posteriorly, with broadly but weakly emarginate posterior border, rounded posterior corners and convex cheeks; both the head and remainder of the body of a habitus somewhat similar to that of the North American forms of *herculeanus* (L.). Eye oblong, weakly convex, approximately 0.75 mm. in its greatest length, placed much closer to the posterior than the anterior border of the head. Frontal area small, subtriangular, poorly defined. Mandible rather small, subtriangular, with five coarse, distinct teeth. Clypeus subcarinate, broader anteriorly than posteriorly; middle of the anterior border of the clypeus slightly extended to produce a subtruncate lobe on each side of which there is a sinuosity or emargination. Clypeal fossæ distinct. Frontal carinae opposing each other to form a lyre-shaped figure. Frontal groove extending from the frontal area at least as far posteriorly as the ends of the frontal carinae. Antenna 12-segmented; scape elongate, attaining at least the posterior corner of the head, curved at the base and also slightly flattened in this region. Thorax, from above, widest at the pronotum, where it measures approximately 2 mm. In profile, the thorax arched antero-posteriorly and lowest where the base and declivity of the epinotum meet. Legs moderately long, each tibia with a single spur, the tibiae of the middle and posterior legs with a double row of graduated bristles on their flexor

surfaces. Petiole with convex anterior surface and flattened posterior surface, the dorsal border sharp and entire, highest in the middle. Gaster, from above, elongate subelliptical, broadest at the base, more acute apically.

Mandibles rather coarsely rugulose punctate. Body rather shining (especially in some lights) but not strongly so. The sculpture of the ground surface dense but weak, consisting of fine reticulæ; in some lights or aspects the boundaries of the various individual reticulæ seem to coalesce to form exceedingly fine rugulæ. Head, especially the clypeus, cheeks and sides with conspicuous, pubescence-bearing punctures. Clypeus and lower portions of the cheeks with large, coarse, scattered foveolæ which bear erect or suberect hairs and give these areas a bearded and somewhat roughened aspect.

Hairs on body rather sparse, deep yellowish or golden, moderately long to rather long, suberect to erect; rather well scattered over all parts of the head except the occiput, sides and corners, almost lacking on the thorax, being represented there by a single hair on the pronotum and a clump of nine erect hairs arranged in a transverse row at the junction of the base and declivity of the epinotum; dorsal border of petiole with ten erect hairs; dorsum of each gastric segment with two rows of suberect to erect hairs, one near the anterior border and another near the posterior border, both running transversely across the gaster, the hairs near the apex of the gaster apparently the longest. Gula, coxæ and trochanters with suberect hairs.

Body black. Last five or six funicular segments lighter than the preceding ones. Maxillary and labial palpi light brown, legs reddish brown; a fairly broad, yellowish band at the posterior border of each gastric segment where that segment overlaps the succeeding one.

Minor (?) worker: Length 9.5 mm.

Differing mainly from the major worker in size and in the proportions of the body, especially of the head. Head somewhat subrectangular in appearance, approximately 1.12 times as long as broad when measured at its greatest length and breadth, with rounded posterior corners, rounded posterior border and weakly convex sides. Eye oblong, weakly convex, approximately 0.65 mm. at its greatest length, placed closer to the posterior than to the anterior border of the head. Frontal area, mandibles, clypeus, clypeal fossæ, frontal carinæ, frontal furrow as in the major worker. Antenna as in the major worker but the scape proportionally longer, the scape extending past the posterior corner of the head by 0.9 mm. or approximately one-third the length of the scape. Thorax, from above, widest at the pronotum where it measures approximately 1.8 mm.; in profile, the thorax similar to that of the major worker. Legs, petiole, gaster, sculpture, pilosity, pubescence and color, also as in the major worker.

Type locality—Tanbark Flat, Los Angeles County, California; approximately 2,700 ft.

Described from a holotype, major (?) worker and 78 paratype workers of variable size which were collected July 15, 1952 by Thompson C. Lawrence from live oak, *Quercus* sp. The holotype and 60 paratype workers have been placed in the United States National Museum under U. S. N. M. No. 62025. Six paratypes each have also been distributed to the following: The Museum of Comparative Zoology, Cambridge, Massachusetts, The California Academy of Sciences, San Francisco, California, The American Museum of Natural History, New York, New York and T. C. Lawrence.

Mr. Lawrence noted the ants feeding on exudates on the trees but did not specify the nature of the exudates. Although he sought colonies and was unable to find them, he believes that the ants nest in the oaks, probably in dead branches. One of the peculiarities noted was that workers did not appear until very dark on days when workers of *C. vicinus* Mayr came out about sunset in the same area.

One of the most noticeable variations among the paratypes is in the pilosity. The pronotum is usually without erect hairs but it may occasionally have one or two hairs; the mesonotum usually has two erect hairs, but in some specimens has none, only one or as many as four; the cluster of hairs on the epinotum consists of from two to ten hairs, most commonly four to seven. Specimens have been seen without erect hairs on the epinotum but presumably these had been rubbed off. None of the individuals lacked piligerous foveolæ on the cheeks but the number and size of the foveolæ varied considerably.

After studying the new species at considerable length I have come to the conclusion that it belongs to the subgenus *Camponotus* and is in or very near to the *herculeanus* (L.) complex of North American ants (sense of Wheeler, 1910).

In the keys to *Camponotus* (Wheeler, 1910, Ann. N. Y. Acad. Sci. 20 (6): 295-354 and Creighton, 1950. Harvard Univ., Bul. Mus. Comp. Zool. 104: 585 pp., 57 pl.) the species would key out to *noveboracensis* (Fitch) but it is not this species at all, being readily distinguished from it by color, by the coarse piligerous foveolæ on the anterior part of the head and by other characters. I do not know any North American species which is

even closely related to it, the new species being especially characterized by its black and rather shining body, piligerous foveolæ on the cheeks and clypeus, subcarinate clypeus, slender body and long antennal scapes. The species may be distinguished at once from *lævigatus* (F. Sm.) by the lack of suberect or erect hairs on the antennal scapes, color of body hairs and nature of the sculpturing.